

LAND APPLICATION SITE

KWABENA A. DONKOR

CRKAD 1

CAROLINE COUNTY

Alps, on corner.
Caroline Co.

RECYC SYSTEMS, INC

PART D-VI BIOSOLIDS APPLICATION AGREEMENT

This biosolids application agreement is made on 7-25-08 between KWABENA A. DONKOR, referred to here as "landowner", and Recyc Systems, Inc, referred to here as the "Permittee".

Landowner is the owner of agricultural land shown on the map attached as Exhibit A and designated there as _____ ("landowner's land"). Permittee agrees to apply and landowner agrees to comply with certain permit requirements following application of biosolids on landowner's land in amounts and in a manner authorized by (VPA) (VPDES) permit number _____ which is held by the Permittee.

Landowner acknowledges that the appropriate application of biosolids will be beneficial in providing fertilizer and soil conditioning to the property and consents to the application of biosolids on his property. Moreover, landowner acknowledges having been expressly advised that, in order to protect public health:

1. Public access to landowner's land upon which biosolids have been applied should be controlled for at least 30 days following any application of biosolids and no biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
2. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation. Other food crops, feed crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
3. Following biosolids application to pasture or hayland sites, meat producing livestock should not be grazed or fed chopped foliage for 30 days and lactating dairy animals should be similarly restricted for a minimum of 60 days. Other animals should be restricted from grazing for 30 days;
4. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia to be supplied to the landowner by the permittee at the time of application of biosolids to a specific permitted site;
5. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).
6. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

The landowner agrees to allow county officials access to the area of the property permitted for biosolids, whenever necessary, to complete site inspections related to the scheduled biosolids program.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for biosolids application and specifically prior to any particular application to landowner's land. This agreement may be terminated by either party upon written notice to the address specified below.

Landowner Signature:

Kwabena A. Donkor

Farm Operator Signature:

Clarence W. Tignor Sr.

Permittee:

Recyc Systems, Inc.

Mailing Address:

72 Zion Hill Rd. Farmville, Va 23901
Tel# 434 392 4188

Mailing Address:

31194 Sparta Road
Milford Va 22514
Tel# 804-633-6630

Mailing Address:

P.O. Box 562
Remington Virginia 22734
(540) 547-3300

Kwabena A. Donkor Farm Site

[illegible]

RECYC SYSTEMS, INC

FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA tract #
		Water Table	Bed Rock/Shallow	Surf/Leach	Freq Flood			
CRKAD 1	38.6	--	--	--	--	YO 51	TM 75 P 31	2869
TOTAL ACRES IN SITE	38.6							

Report Number:

R08316-0007

Account Number:

70594

A&L EASTERN LABORATORIES, INC.

7621 Whitepine Road • Richmond, Virginia 23237-2214

Phone (804) 743-9401 • Fax (804) 271-6446

Website: www.al-labs-eastern.com • E-mail: office@al-labs-eastern.com



Send To: RECYC SYSTEMS INC
POB 562
REMINGTON, VA 22734

Grower: CHESTER CURLEY/CRCMC
CAROLINE CO

Submitted By: SONNY DEAL

Farm I D:

Field I D:

Susan Trumbo

SOIL ANALYSIS REPORT

Analytical Method(s):

Mehlich III

Page: 1

Date Received: 11/11/2008

Date of Analysis: 11/12/2008

Date of Report: 11/13/2008

Sample Number	Lab Number	Organic Matter			Phosphorus				Potassium		Magnesium		Calcium		Sodium		pH		Acidity	C.E.C.					
		%	ENR lbs/A	Rate	Available ppm	Reserve ppm	Rate	K ppm	Rate	MG ppm	Rate	CA ppm	Rate	NA ppm	Rate	Soil pH	Buffer Index	H meq/100g	meq/100g						
1	12219	2.6	92	M	14	L		131	H	130	H	860	M		5.8	6.8	1.3	7.1							
Sample Number	Percent Base Saturation					Nitrate		Sulfur		Zinc		Manganese		Iron		Copper		Boron		Soluble Salts	Chloride		Aluminum		
	K %	Mg %	Ca %	Na %	H %	NO3-N ppm	Rate	SO4-S ppm	Rate	ZN ppm	Rate	MN ppm	Rate	FE ppm	Rate	CU ppm	Rate	B ppm	Rate		ms/cm	Rate	CL ppm	Rate	AL ppm
1	4.8	15.3	60.9		19.0																				

ALE-Soil

Values on this report represent the plant available nutrients in the soil.

Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High).

ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams).

Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to the sample(s) tested. Samples are retained a maximum of thirty days after testing. Soil Analysis prepared by: A & L EASTERN LABORATORIES, INC.

by:

Paul Chu

Paul Chu, Ph.D.

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
(Fall, 2009-Winter, 2011)
Kwabena A. Donkor
Planner: Recyc Systems, Inc

Tract: 2869

Location: Caroline

(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d).	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes	
2/CRKAD(N)	39/39	2009	Hay/Pasture	120-110-145	0/0				120-110-145	N/A			

Commercial Application Methods:

br - Broadcast ba - Banded sd - Sidedress

Notes:

THE PLANNER IS NOT STATE CERTIFIED

Kwabena A. Donkor Narrative

This is the Kwabena A. Donkor located in Caroline County. The farm consists of hay and pasture .

This is a partial plan written for the purpose of obtaining a biosolids permit. Biosolids application has not been shown since it is uncertain when a permit will be obtained. The partial plan will be revised prior to biosolids application to obtain a target biosolids application rate.

Soil Test Summary

Tract	Field	Acre	Date	P2O5	K2O	Lab	Soil pH	Lime Date	rec. lime tons/Ac
2869	CRKAD	39	2008-Fa	L (14 P ppm)	H- (131 K ppm)	A&L Mill	5.8		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
2869	2869/2	CRKAD	39	Slagle	IIb	I	III	I	

Yield Range

Field Productivity Group	Corn Grain Bu/Acre	Barley/Intensive Wheat Bu/Acre	Std. Wheat Bu/Acre	Alfalfa Tons/Acre	Grass/Hay Tons/Acre
I	>170	>80	>64	>6	>4.0
II	150-170	70-80	56-64	4-6	3.5-4.0
III	130-150	60-70	48-56	<4	3.0-3.5
IV	100-130	50-60	40-48	NA	<3.0
V	<100	<50	<40	NA	NA

Farm Summary Report

Plan: New Plan Fall, 2009 - Winter, 2011

Farm Name: Kwabena A. Donkor

Location: Caroline

Specialist: Recyc Systems, Inc

Tract Name: 2869

FSA Number: 2869

Location: Caroline

Field Name: CRKAD

Total Acres: 38.60 **Usable Acres:** 38.60

FSA Number: 2

Tract: 2869

Location: Caroline

Slope Class: B **Hydrologic Group:** C

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:

Pasture (>75% cover)

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K		Lab
Fa-2008	5.8	L(14 P ppm)	H-(131 K ppm)	A&L MIII	

Soils:

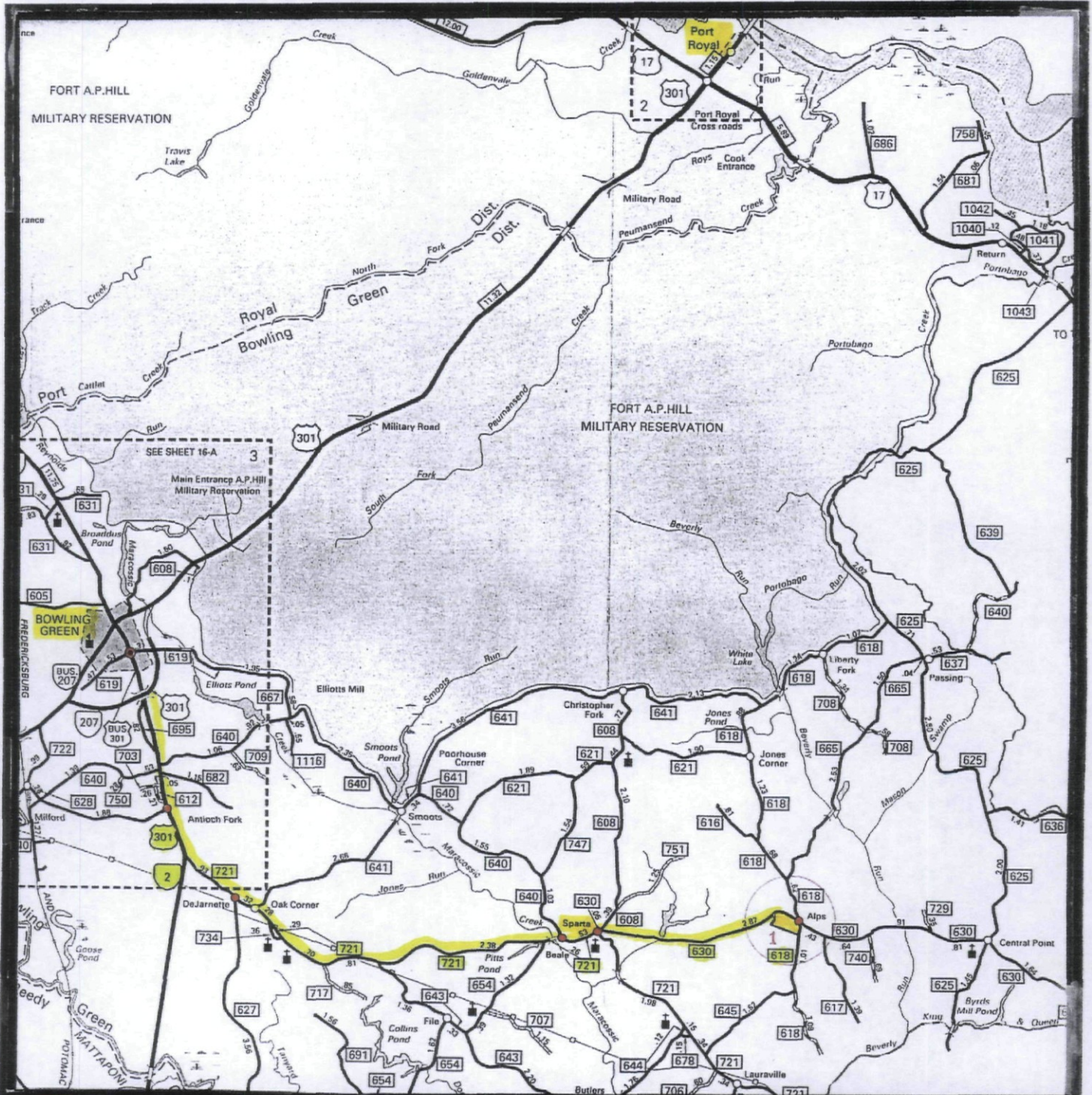
PERCENT	SYMBOL	SOIL SERIES
60	21C	Kempsville Slagle
40	22A	Slagle

Field Warnings:

MAPS

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1" = 2 miles

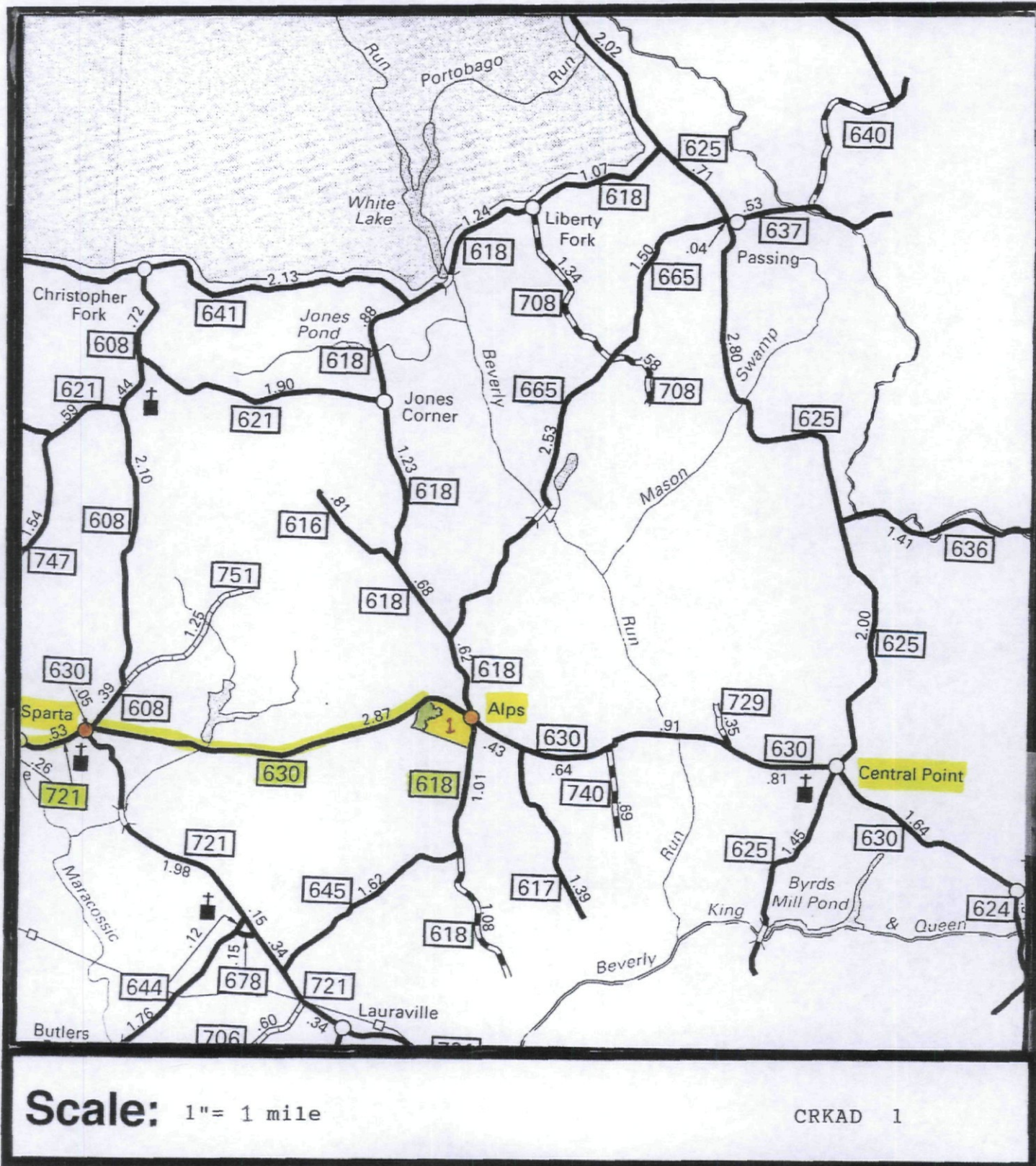
CRKAD 1

VICINITY MAP



Inc.

(Biosolids Land Application)



Scale: 1" = 1 mile

CRKAD 1

VICINITY MAP





CRKAD 1

Scale: 1" = 660'

TAX MAP



ADJOINING LANDOWNERS

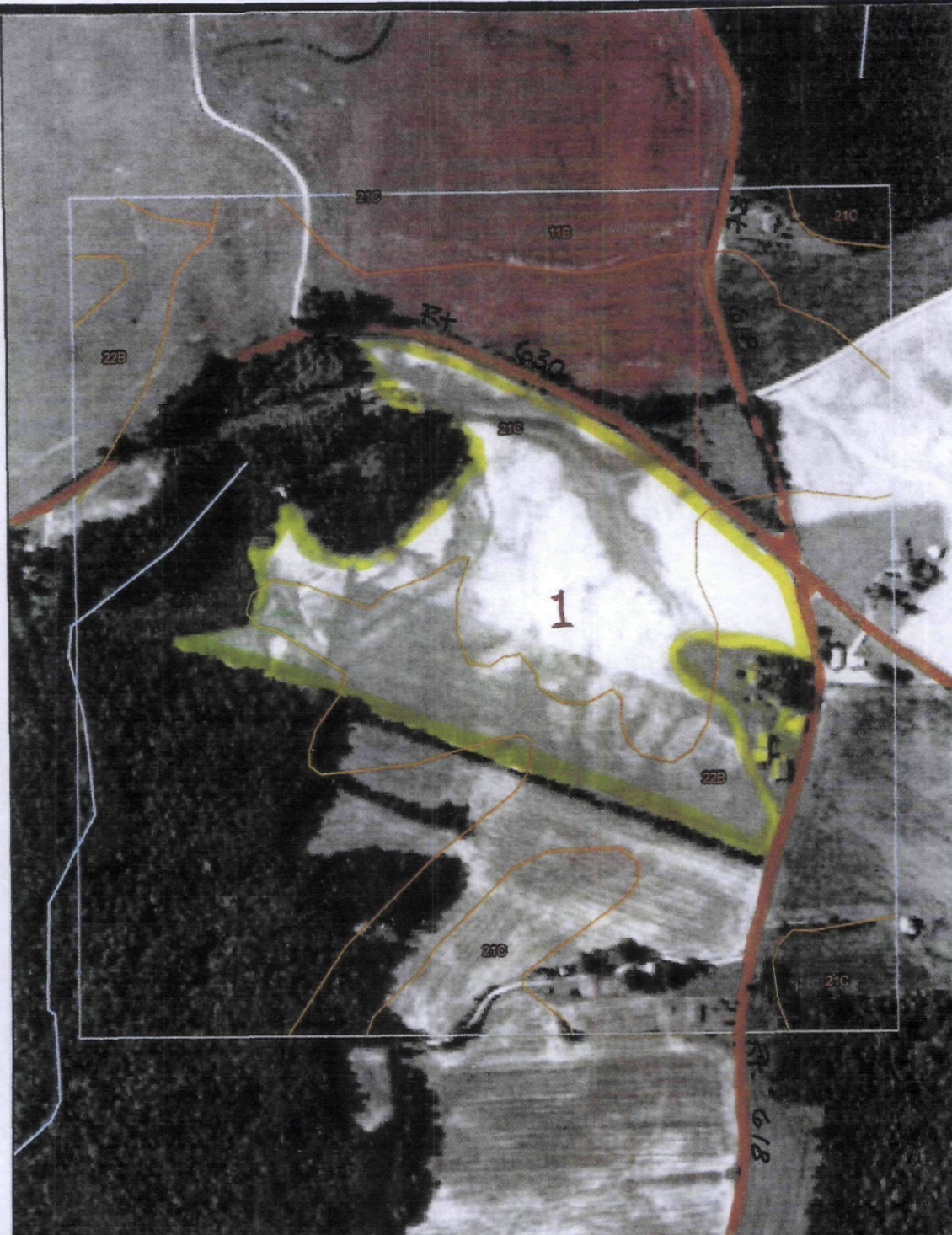
Kwabena A Donkor

CAROLINE COUNTY

Tax Map	Parcel #	Owner Name(s)
75	29	James & Willia Clarke
	30	James & Willia Clarke
	31	Kwabena & Grace Donkor
	31A	Gordon & Bernice Beazley
	31B	Helen C. Anderson
	33	R.L. Beazlay et als.
	49	Alps Farm LLC
	50	Alps Farm LLC
	51	Alps Farm LLC
	69	Russell & Elizabeth Carter
	71	Emmett & Bernice Beazley

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1" = 500'

CRKAD 1

SOIL MAP



Recyc SystemsTM Inc.

(Biosolids Land Application)



USDA United States Department of Agriculture
Farm Service Agency



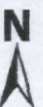
Digital Orthophotography
Not to Scale

Caroline County

Scale: 1" = 660'

CRKAD 1

AERIAL MAP



Legend for Site Plan

H/W

House and Well

W

Well



Perennial Streams & Surface Waters



Wet Spot



Intermittent Stream / Drainage Ditch



Trees and Woods



Private Drive



Rock / Rocky Area



Sinkhole



Severely Eroded Spot



State Road



Field Boundary / Fence



Property Line

SL

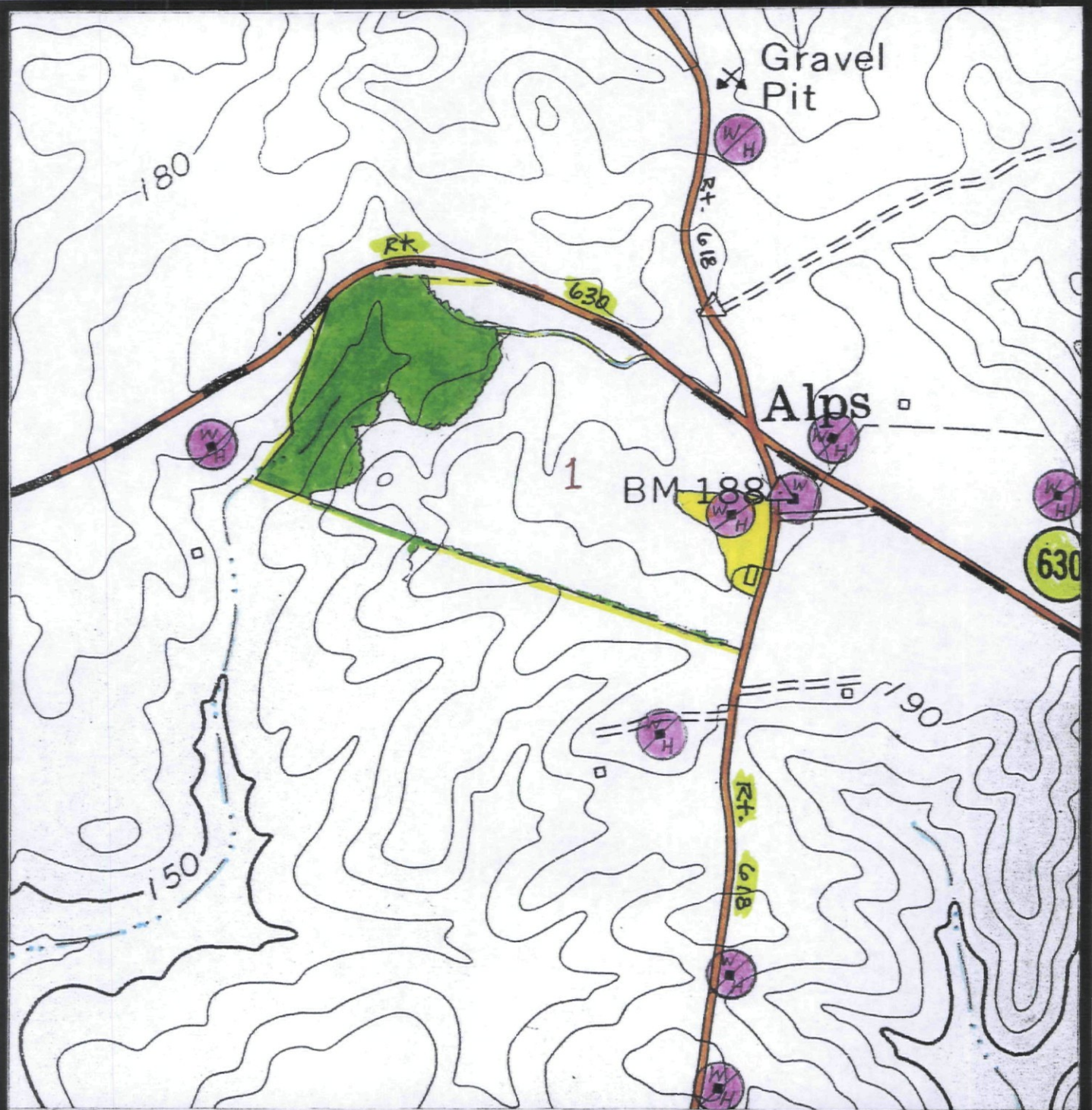
Slope



Frequent Flooded Soil (seasonal)

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1" = 660'

CRKAD 1

SITE PLAN



Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1" = 2,000'

CRKAD 1

TOPOGRAPHIC MAP

